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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,547	01/10/2001	Kenichi Suzuki	450100-02931	9718

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NEW YORK, NY 10151

EXAMINER
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ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 05/19/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/757,547

Applicant(s)

SUZUKI, KENICHI

Examiner

Jorge L Ortiz-Criado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto U.S. Patent No. 6,335,909.

Regarding claims 1,10, Hashimoto discloses an optical disc apparatus comprising:

an optical pickup for irradiating a light beam through a two-focus lens onto a signal recording surface of an optical disc including the signal recording surface where digital data is recorded to be optically readable, and for detecting reflection light thereof using plural detectors generating at least A,B,C and D detection signals (See Abstract; col. 2. line 56 to col. 3, line 28; Fig. 1);

drive control means for driving and controlling the two-focus lens in an optical axis direction of the light beam (See col. 2. line 56 to col. 3, line 28; Fig. 1);

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focus error center value measurement means for measuring a focus error center value detected by the optical pickup (See col. 2, lines 41 to col. 4, line 18)

focus error signal generation means for generating a focus error signal subjected to balance-adjustment based on the reflection light and a variable coefficient  $K_f$ , wherein said focus error signal (FE) is generated by the equation  $FE = (A+C) - K_f \cdot (B+D)$  (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#2, signal S1) and

focus balance control means for causing the drive control means to control a focus balance, based on the focus error center value measured by the focus error center value measurement means (See Fig. 1, ref# 6), and

the focus error signal generated by the focus error signal generation means and subjected to the balance adjustment (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#2, signal s1)

Regarding claim 2 and 7, Hashimoto discloses focus/tracking bias voltage supply means for supplying the drive control means with a focus/tracking bias voltage; and focus/tracking bias control means for causing the focus/tracking bias voltage supply means to supply the drive control means with the focus/tracking bias voltage, thereby to cause the drive control means to control a focus/tracking bias (See col. 2, lines 41 to col. 4, line 18; Fig. 1, ref# 6,7)

Regarding claim 3 and 8, Hashimoto discloses wherein the two-focus lens forms two focus positions by one single objective lens, corresponding to a plurality of discs having respectively different disc substrate thicknesses (See Abstract; col. 2, lines 19-39; col. 5, lines 6-37)

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Regarding claim 4 and 9, Hashimoto discloses wherein the focus error center value measurement means measures an error center value with the two-focus lens kept sufficiently distant from a just-focus position (See col. 2, lines 41 to col. 4, line 18)

Regarding claim 5 and 10, Hashimoto discloses wherein a plurality of values including an initial value used as a reference are set and stored for the coefficient  $K_f$  (See col. 2, lines 41 to col. 4, line 18)

Regarding claim 6, Hashimoto discloses an optical disc apparatus comprising:  
an optical pickup for irradiating a light beam through a two-focus lens onto a signal recording surface of an optical disc including the signal recording surface where digital data is recorded to be optically readable, and for detecting reflection light thereof using plural detectors generating at least E and F detection signals (See Abstract; col. 2, line 56 to col. 3, line 28; Fig. 1);

drive control means for driving and controlling the two-focus lens in a radial direction of the optical disc (See col. 2, line 56 to col. 3, line 28; Fig. 1);

tracking error center value measurement means for measuring a tracking error center value detected by the optical pickup (See col. 2, lines 41 to col. 4, line 18);

tracking error signal generation means for generating a tracking error signal subjected to balance-adjustment based on the reflection light and a variable coefficient  $K_t$ ; wherein said

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tracking error signal (TE) is generated by the equation,  $TE = E - K_t * F$  (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#4, signal S2), and

tracking balance control means for causing the drive control means to control a tracking balance, based on the tracking error center value measured by the tracking error center value measurement means (See Fig. 1, ref# 6), and

the tracking error signal generated by the tracking error signal generation means and subjected to the balance adjustment. (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#4, signal S2)

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. U.S. Patent No. 5,610,886 to Hayashi et al., which discloses an optical disc apparatus comprising: an optical pickup for irradiating a light beam through a focus lens onto a signal recording surface of an optical disc including the signal recording surface where digital data is recorded to be optically readable, and for detecting reflection light thereof using plural detectors generating at least A, B, C and D detection signals; drive control means for driving and controlling the focus lens in an optical axis direction of the light beam; focus error center value measurement means for measuring a focus error center value detected by the optical pickup focus error signal generation means for generating a focus error signal subjected to balance-adjustment based on the reflection light and a variable coefficient  $K_f$ , wherein said focus error signal (FE) is generated by the equation  $FE = (A + C) - K_f * (B + D)$  and focus balance control means for causing the drive

control means to control a focus balance, based on the focus error center value measured by the focus error center value measurement means and the focus error signal generated by the focus error signal generation means and subjected to the balance adjustment.

- b. U.S. Patent No. 6,041,028 to Quan et al.; U.S. Patent No. 6,167,011 to Sun et al.:  
discloses an optical disc apparatus comprising: an optical pickup for irradiating a light beam through a two-focus lens onto a signal recording surface of an optical disc including the signal recording surface where digital data is recorded to be optically readable, and for detecting reflection light thereof using plural detectors generating at least E and F detection signals; drive control means for driving and controlling the two-focus lens in a radial direction of the optical disc; tracking error center value measurement means for measuring a tracking error center value detected by the optical pickup; tracking error signal generation means for generating a tracking error signal subjected to balance-adjustment based on the reflection light and a variable coefficient  $K_t$ ; wherein said tracking error signal (TE) is generated by the equation,  $TE=E-K_t \cdot F$ , and tracking balance control means for causing the drive control means to control a tracking balance, based on the tracking error center value measured by the tracking error center value measurement means, and the tracking error signal generated by the tracking error signal generation means and subjected to the balance adjustment.

- c. U.S. Patent No. 5,926,445 to Sasaki et al.; U.S. Patent No. 5,291,466 to Kwak:

discloses an optical disc apparatus comprising: an optical pickup for irradiating a light beam through a focus lens onto a signal recording surface of an optical disc including the signal recording surface where digital data is recorded to be optically readable, and for detecting reflection light thereof using plural detectors generating at least E and F detection signals; drive control means for driving and controlling the focus lens in a radial direction of the optical disc; tracking error center value measurement means for measuring a tracking error center value detected by the optical pickup; tracking error signal generation means for generating a tracking error signal subjected to balance-adjustment based on the reflection light and a variable coefficient  $K_t$ ; wherein said tracking error signal (TE) is generated by the equation,  $TE = E - K_t * F$ , and tracking balance control means for causing the drive control means to control a tracking balance, based on the tracking error center value measured by the tracking error center value measurement means, and the tracking error signal generated by the tracking error signal generation means and subjected to the balance adjustment.

d. U.S. Patent. No. 5,751,674 to Bradshaw et al, which discloses an optical disc apparatus for controlling bias amount of focus error signal using plural detectors generating at least A, B, C and D detection signals.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

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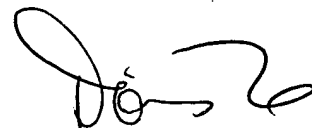
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm), Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**DORIS H. TO  
SUPERVISORY PATENT EXAMINER  
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